In the Specification

Applicants present replacement paragraphs below indicating the changes with insertions indicated by underlining and deletions indicated by strikeouts and/or double-bracketing.

Please replace the paragraph beginning on page 7, line 16 with the following amended paragraph:

A ferrule attachment station may include one or more of the following constituent devices and/or station areas which first will be described generally and then each constituent will be discussed in more detail. As shown in Figures 3-7, the ferrule attachment station includes a collet 42 for positioning and manipulating a ferrule 34 relative to the other devices and areas within the station. The collet shown is moveable in the "Y" and "Z" axes, but a collet also is contemplated that is moveable along the "X" axis as well. For purposes of this patent application, "X" is the horizontal axis across the station, "Z" is the vertical axis relative to the station, and "Y" is an axis perpendicular to the "X " axis and that extends between the front and the back of the station. The collet also may be rotatably moveable "θ". A magazine 48 or other source of an inventory of ferrules is provided and cooperates with an escapement 105 and a loader 53 to provide a delivery system for presenting an individual ferrule to the collet when it is present at the ferrule loading area. A dispenser 47 introduces a preprogrammed amount of adhesive into the ferrule when the collet locates the ferrule in an appropriate position relative to the dispenser outlet. An entrance into the station may include a receiving area 57 for a tray supporting a fiber coil. Adjacent the tray receiving area, a clamp is provided to hold the bare fiber end along a path that will be traveled by the collet. The clamp may include a primary clamp 63 that supports a jacketed portion of the fiber, and a secondary clamp 62 that supports the ferrule mounting segment of the bare fiber. A heater 56 may be activatable to partially or fully cure the adhesive after the ferrule has been mounted to the fiber end. A gripper 75 may be provided for carefully picking up the ferrule mounted fiber end and placing it in a desired location in the tray or other coil support device. A hold down member 80 may be deployed to clamp the tray when the "pick and place" fiber

gripper is repositioning the ferrule mounted fiber end in the tray. The various components may be under computer control.

Please replace the paragraph beginning on page 8, line 11 with the following amended paragraph:

A supply for feeding a stack of ferrules to the collet is shown in Figure 8 [[-9]]. A magazine 48 supported by a magazine mount block 101 is mounted by a bracket 104 to the ferrule attachment apparatus. The magazine exit opens directly above a slide pusher 105 (see Figure 9). When the slide pusher 105 is retracted along the X-axis, a ferrule is gravity fed into the slot 106. The slide pusher 105 is moved forward, loading the ferrule into a chuck, such as the illustrated cylindrical vacuum chuck 51. The slide pusher 105 then retracts to load another ferrule. A vision system 49 (see Figure 3), includes a camera, or other imaging device, linked to a computer, so that an image of the ferrule 34 taken by the camera can be examined, to determine if the ferrule is in the desired orientation. The vision system may check the location of the ferrule opening and/or may determine what type of opening is being presented to the collet 42. Other methods of determining the orientation of the ferrule 34 also are contemplated. For example, a probe may be used to physically detect the location of the ferrule opening or the type of ferrule opening. If it is desirable to reverse the orientation of the ferrule, the chuck 51 may be rotated 180 degrees, switching the ferrule end which is presented to the collet 42. A pneumatic actuator <u>109</u> may rotate the chuck 51 with a timing belt 110. After acceptance of the orientation of the ferrule, a pusher tool such as, for example, a pin 53 may be actuated to present the ferrule to the collet. The slide pusher 105 and pin 53 may be actuated with dual rod cylinders, belt systems, electric motors, or any other suitable actuators. Pneumatic dual rod cylinders 112 are shown in .

Please replace the paragraph beginning on page 9, line 5 with the following amended paragraph:

The collet 42 approaches, grasps and removes the ferrule 34 presented by the chuck. If necessary, the collet 42 may also rotate, before and/or after grasping the ferrule 34, to re-orient

the ferrule 34; particularly where an offset fiber through hole 39 in a ferrule is not in a desired, pre-determined orientation. Horizontal and vertical linear drive assemblies 71 and 72 move the collet 42 up and down ("Z" axis) and side to side ("Y axis"), as illustrated in Figure 11. In each drive assembly 71 and 72, a carriage 123 moves linearly with the turning of a lead screw 124, which may be, for example, a ball screw. An electric motor 73 rotates the lead screw 124 with a belt 127 and pulley 125 system. An encoder 129 may be used to sense the linear position of the carriage 123 and hence the collet 42. Alternately, a rotary encoder may be used on one of the pulleys 125 to determine the linear position of the carriage 123. The collet 42 may be rotated by a drive assembly 121 as shown in Figures 11-12. A collet mount 131 holds the collet 42 and is coupled to a collet gear 133 by a mount plate 134, and the assembly rotates in bearings 135 that are mounted in collet axis body 138. A drive gear 136 that is rotated by an electric motor 137 turns the collet gear 133. Two rotary stops 132 prevent the collet 42 from rotating beyond certain angles. A pair of sensors 139 may be added to sense the rotational position of the collet 42. Other arrangements for moving a collet in any combination of the "X", "Y", and/or "Z" axes and/or rotating the collet are contemplated as should be apparent to one of skill in the art.

Please replace the paragraph beginning on page 12, line 29 with the following amended paragraph:

A frame ~~80~~ 90 supports the ferrule attachment module 100, and additionally may house various electronics, pneumatic controls and connections, and a dedicated controller if desired as well as other displays, input devices and so on as illustrated in Fig. 7. The automated ferrule attachment station may be arranged to respond to signals from a computer controller; the controller being arranged to receive and transmit signals from and to various components, to control the various operations of the ferrule attachment station. The computer controller may be arranged to communicate with the various station components by direct hard link, wireless, and other arrangements as would be apparent to one of skill in the art. The computer controller may receive a signal that a particular step has begun or ended and the controller may, responsive to such a signal, generate a new signal initiating one or more operations of various of the devices

incorporated into the station. The controller can be implemented in any of numerous ways, as the present invention is not limited to any particular technique. In accordance with one illustrative embodiment of the present invention, the controller is a processor that is programmed (via software) to perform the above-recited control functions, and to coordinate interaction amongst the various system components. Of course, it should be appreciated that other implementations are possible, including the use of a hardware controller, and/or multiple controllers that replace a single central controller. As an example, and without limiting the invention, the controller may include a Windows NT based PC, and a distributed I/O system using a field bus such as CANOpen.